Society of Automotive Engineers, Inc.
TWO PENNSYLVANIA PLAZA, NEW YORK, N.Y. 10000

AEROSPACE MATERIAL SPECIFICATION

AMS 5080D
Superseding AMS 5080C
Issued 6-1-42
Revised 5-1-69

STEEL BARS, FORGINGS, AND TUBING
0.31 - 0.38C (SAE 1035)

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.

2. FORM: Bars, forgings, mechanical tubing, and forging stock.

3. COMPOSITION:

	min	max
Carbon	0.31	0.38
Manganese	0.60	0.90
Silicon	0.15	0.30
Phosphorus	--	0.040
Sulfur	--	0.050

3.1 When permitted by purchaser, carbon may be as high as 0.44.

3.2 Check Analysis: Composition variations shall meet the requirements of the latest issue of AMS 2259, paragraph titled "Carbon Steels, Bars, Forgings, and Forging Stock".

4. CONDITION: Unless otherwise ordered, the product shall be supplied in the following condition.

4.1 Bars: In a machinable condition and hot finished having hardness not higher than Brinell 229 or equivalent, except that bars ordered cold finished may have hardness as high as Brinell 241 or equivalent.

4.2 Forgings: As ordered.

4.3 Tubing: In a machinable condition and cold finished having hardness not higher than Brinell 241 or equivalent, except that tubing ordered hot finished shall have hardness not higher than Brinell 229 or equivalent.

4.4 Forging Stock: As ordered by the forging manufacturer.

5. QUALITY: The product shall be uniform in quality and condition, clean, sound, and free from foreign materials and from internal and external imperfections detrimental to fabrication or to performance of parts.

6. TOLERANCES: Unless otherwise specified, tolerances shall conform to all applicable requirements of the following:

6.1 Bars: The latest issue of AMS 2231; for all hexagons, tolerances for cold finished shall apply.

6.2 Tubing: The latest issue of AMS 2253.

SAENORM.COM : Click to view the full PDF of ams5080d

SAE Technical Board rules provide that: "All technical reports, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to adhere to any SAE standard or recommended practice, and no commitment to conform to or be guided by any technical report. In formulating and approving technical reports, the Board and its committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of patents."

Copyright 1969 by Society of Automotive Engineers, Inc.

Printed in U.S.A.